

Please amend Claim 16 to read as follows:

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B<sup>1</sup> 16. (Amended) A system for measuring the optical power and optical signal to noise ratio of optical signals in a data network, comprising:

a photodetector;

a trans-impedance amplifier;

an analog to digital converter; and

a microprocessor;

where the photodetector is the device of any of claims 1-12.

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Please add new Claim 29 as follows:

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B<sup>2</sup> 29. (New) The device of any of Claims 5-12, further comprising:  
a metallic diffusion region in a portion of said upper region;  
and  
a tuning contact in electric communication with said metallic  
diffusion .

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### REMARKS

In the Office Action the examiner rejected claims 1 – 13 and 16 – 19. Claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Matsui (JP Patent 363111679A). Claims 5 and 9 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mizutani, et. al. (U.S. Patent No. 5,946,336). Additionally, claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as unpatentable over Matsui in view of Aoki, et. al. (U.S. Patent No. 5,737,474), and claims 5 – 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chandrasekhar (U.S. Patent No. 5, 689,122). Finally